

# Notice of Allowability

Application No.

09/848,509

Examiner

Monique M Wills

Applicant(s)

WHEAT ET AL.

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE filed 10/19/2004.
2. ☒ The allowed claim(s) is/are 2-5, 7-10, 12-15, 17-21 and 23-29.
3. ☒ The drawings filed on 03 May 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

#### REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: claims 2,17,21 & 24-25 are allowable over the prior art of record, because the prior art is silent to a humidity control system for a fuel cell stack comprising a bypass line having one end connected between a gas supply and a humidifier and an opposite end connected between the outlet of the humidifier and the inlet of a fuel cell stack, wherein the valve located in the bypass line is a gas restriction valve or a throttle valve.

The prior art, such as Voss et al. U.S. Patent 6,106,964, teaches a humidity control system comprising a fuel cell stack, a humidifier and a valve member 160 that is either completely open or completely closed. There is no teaching or suggestion in Voss '964 for having restriction or throttle valves. Therefore, the instant claims are patentably distinct from Voss.

Claims 3,5,7,8,12,13,18,23 & 27-29 are allowable over the prior art of record, because the prior art is silent to a humidity control system for a fuel cell stack comprising: a proportional valve located in a bypass line, wherein said proportional valve being openable at a plurality of positions including a fully open position, a fully closed position, and a plurality of intermediate partially closed positions.

The prior art, such as Voss et al. U.S. Patent 6,106,964, teaches a humidity control system comprising a fuel cell stack, a humidifier and a valve member 160 that is either completely open or completely closed. There is no teaching or suggestion in Voss '964 for a proportional valve being openable at a plurality of positions including a fully open position, a fully closed position, and a plurality of intermediate partially closed positions. Therefore, the instant claims are patentably distinct from Voss.

Claims 4,9,10,14,15,19,20 & 26 are allowable over the prior art of record, because the prior art is silent to a humidity control system for a fuel cell stack comprising: a humidifier including an inlet connected to a gas supply and an outlet; a fuel cell stack including an inlet that is connected to the outlet of the humidifier; a bypass line having one end connected between the gas supply and the humidifier and an opposite end connected between the outlet of the humidifier and the inlet of the fuel cell stack; wherein the valve is located in the bypass line; and a controller is connected between the humidity sensor and the valve.

The prior art, such as Voss et al. U.S. Patent 6,106,964, teaches a humidity control system comprising a fuel cell stack, a humidifier and a valve member 160. The reference is silent to a humidity sensor and controller connected to the humidity sensor to control the humidity of a valve located in the bypass line. Therefore, the instant claims are patentably distinct from Voss.

#### CONCLUSIONS

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Monique Wills whose telephone number is (571) 272-1309. The Examiner can normally be reached on Monday-Friday from 8:30am to 5:00 pm.

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If attempts to reach Examiner by telephone are unsuccessful, the Examiner's supervisor, Michael Barr, may be reached at 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MW

11/15/04



**MICHAEL BARR**  
**SUPERVISORY PATENT EXAMINER**